THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A improved method for display of a transitional region of interest while transitioning between a first region of interest and a second region of interest within visual information on a display screen of a computer, said method comprising the steps of:

applying a transitional transformation to said visual information, said transitional transformation requiring reduced calculations for transforming said visual information to transitional transformed visual information; and

displaying said transitional transformed visual information on said display screen.

2. The method of claim 1 wherein said transitional transformation reduces calculations by transforming only a portion of said visual information in said transitional region of interest.

3. The method of claim 2 wherein said portion of said visual information in said transitional region of interest is a border of said transitional region of interest.

4. The method of claim 2 wherein said portion of said visual information in said transitional region of interest is a periphery of said transitional region of interest.

5. The method of claim 2 wherein said step of applying a transitional transformation further comprises the steps of:

creating an intermediary lens surface having a predetermined shape for said transitional region of interest; and

creating said transitional transformed visual information by overlaying said visual information on said transitional lens surface and projecting said lens surface with said overlaid visual information onto a plane.

6. The method of claim 5 wherein said predetermined shape of said transitional lens surface is defined by a predetermined portion of a first lens surface for rendering said first region of interest.

7. The method of claim 6 wherein said predetermined portion is a border of said first lens surface.

8. The method of claim 7 wherein said predetermined portion is a periphery of said first lens surface.

9. A method for displaying the transition between regions of interest within visual information on a display screen of a computer, said method comprising the steps of:

selecting a first region of interest within said visual information; applying a first transformation to said visual information to improve the visual detail in said first region of interest; and, displaying said first transformed visual information on said display screen;

selecting a second region of interest within said visual information; applying a second transformation to said visual information to improve the visual detail in said second region of interest; and, displaying said second transformed visual information on said display screen; and,

selecting a transitional region of interest on a path between said first region of interest and said second region of interest within said visual information; applying a transitional transformation to said visual information to improve the visual detail in a predetermined portion of said transitional region of interest; and, displaying said transitional transformed visual information on said display screen.

10. The method of claim 9 and further comprising the step of:

selecting said path between said first region of interest and said second region of interest.

11. The method of claim 9 wherein said predetermined portion of said transitional region of interest is the border of said transitional region of interest.

12. The method of claim 9 wherein said predetermined portion of said transitional region of interest is the periphery of said transitional region of interest.

13. A method for displaying visual information on a display screen of a computer, said method comprising the steps of:

selecting a region of interest within said visual information;

applying a transformation to said visual information for improving visual detail and presentation quality in said region of interest, said transformation for overlaying said visual information on a lens surface, said lens surface having predetermined shape for said region of interest;

projecting said lens surface with said overlaid visual information onto a plane;

increasing resolution of said visual information in said region of interest;

decreasing resolution of said visual information outside said region of interest; and

displaying said transformed visual information on said display screen.

14. The method of claim 13 wherein the method further provides a smooth transition to said region of interest from an adjacent region, said smooth transition resulting from blending said increased and said decreased resolution visual information in predefined regions adjacent to said region of interest.

15. The method of claim 14 wherein said step of blending is accomplished by averaging said increased and said decreased resolution visual information.

16. The method of claim 14 wherein said step of blending is accomplished by admixing said increased and said decreased resolution visual information.

17. A data carrier having stored thereon instructions for improving display of a transitional region while transitioning between a first region of interest and a second region of interest within visual information on a display screen of a computer, said instructions comprising the steps of:

applying a transitional transformation to said visual information, said transitional transformation having a reduced a number of calculations required for rendering said transitional transformed visual information; and

displaying said transitional transformed visual information on said display screen.

18. A method for use with portable document format (PDF) files for displaying visual information on a display screen of a computer, comprising the steps of:

scaling said visual information to produce a scaled representation to fit on said display screen said scaled representation containing the entire content of said visual information;

selecting a region of interest within said scaled representation;

applying a transformation to said scaled representation to improve the visual detail in said region of interest; and

displaying said transformed representation on said display screen.

19. The method of claim 18 wherein said step of applying a transformation further comprising the steps of:

creating a lens surface of predetermined shape for said region of interest; and

creating a transformed representation by overlaying said scaled representation on said lens surface and projecting said lens surface with said overlaid scaled representation onto a plane.

20. The method of claim 19 wherein said region of interest, said lens surface, and said lens surface shape include a plurality of regions of interest, a plurality of lens surfaces, and a plurality of lens surface shapes, respectively.

21. The method of claim 18 wherein said visual information is selected from the group consisting of newspapers, magazines, telephone directories, and maps.

22. The method of claim 18 wherein said visual information includes web page content.

23. The method of claim 18 wherein said display screen is contained in a handheld device.

24. The method of claim 18 wherein said visual information is a newspaper page.

25. The method of claim 24 wherein said newspaper page includes a plurality of headlines, columns, articles, graphics, and advertisements.

26. The method of claim 25 wherein said region of interest is selected from the group consisting of a headline, a column, an article, a graphic, and an advertisement.

27. The method of claim 26 wherein said lens surface shape includes the shape of said region of interest.

28. The method of claim 27 wherein said lens surface shape is a column.

29. The method of claim 28 wherein said lens surface functions to increase the font size within a portion of said column.

30. The method of claim 29 wherein said lens surface shape is tapered to provide a continuous transition on either side of said portion of said column to unmagnified text.

31. The use of a method for displaying visual information from portable document format (PDF) files on a display screen of a computer for, said method comprising the steps of:

scaling said visual information to produce a scaled representation to fit on said display screen said scaled representation containing the entire content of said visual information;

selecting a region of interest within said scaled representation;

applying a transformation to said scaled representation to improve the visual detail in said region of interest; and

displaying said transformed representation on said display screen.